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12-1-1992

# Ram Epididymitis

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### Recommended Citation

Held, Jeff and Fawcett, Linda, "Ram Epididymitis" (1992). *Extension Extra*. Paper 45.  
[http://openprairie.sdstate.edu/extension\\_extra/45](http://openprairie.sdstate.edu/extension_extra/45)

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# Extension Extra

ExEx 2016  
December 1992  
Animal Science/Sheep

SOUTH DAKOTA STATE UNIVERSITY / U.S. DEPARTMENT OF AGRICULTURE

## Ram Epididymitis

### *Brucella ovis*, ELISA Testing and Interpretation

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What is ram epididymitis? It simply means inflammation of the epididymis. The tail of the epididymis is located at the bottom of each testicle. It's normally bulb-shaped and the size of a large marble. The main cause of epididymitis in mature rams is the organism *Brucella ovis* (*B. ovis*).

**Transmission of *B. ovis* occurs between rams through direct contact with the organism.** This can occur:

- ram-to-ram,
- ram-ewe-ram, and
- sniffing and licking infected urine, aborted lambs, and placentas infected with this organism.

**The economic impact of *B. ovis* can be measured by the cost of reduced reproductive efficiency in the flock.** Infection can lead to poor fertility and a need for more rams. Embryonic death, abortion, weak lambs, stillbirths, extended lambing periods, an increase of open ewes, and decrease in the lamb crop may be symptoms in the ewe flock.

In the early 1980s, several studies conducted in western states showed significant production losses due to *B. ovis* ram epididymitis. For example, in one study of 4,200 ewes, there was a loss of 10 pounds of lamb per ewe exposed. **The significant production losses identified in these studies prompted many of the western states to adopt laws and regulations requiring a negative *B. ovis* test on all rams six months of age or older.**

### **South Dakota *B. ovis* Regulations**

In 1988, regulations were implemented for *B. ovis* testing in South Dakota. **All breeding rams over 6 months of age being imported into South Dakota are required to have a negative test not more than 30 days prior to the date of importation.** An exemption is granted if rams are from a

*B. ovis*-free flock, certified by the state of origin, which has requirements equal to those in this state. In addition, rams six months of age and older, that are sold, loaned, or leased within South Dakota for purposes other than immediate slaughter must test negative to *B. ovis* within 30 days of the movement or come from a *B. ovis*-free flock.

### ***B. ovis*-Free Flock**

**Producers can avoid the need to test every breeding ram sold by establishing their flock as *B. ovis*-free.** A flock can meet these conditions by showing that all rams six months of age and older have passed two negative blood tests 45 to 60 days apart. Ideally, you should conduct these tests during a period when the number of rams on hand is lowest. However, to maintain this status, **all rams over six months of age must be tested on an annual basis.** Contact your veterinarian for details on the proper documentation needed to qualify.

### **ELISA Test**

The ELISA test is the approved test for South Dakota and many other states to screen rams for *B. ovis*. ELISA stands for Enzyme Linked Immunosorbent Assay, which is a laboratory test to detect antibodies in the blood. This test procedure is used for a wide variety of disease conditions, in both animals and man. **Blood samples from rams can be checked for the presence of the *B. ovis* antibodies.**

There are three categories into which test results can be classified: negative, suspect and positive. The SDSU Animal Disease Research and Diagnostic Laboratory (ADRDL) suggests that you **retest suspect and positive rams in 45-60 days. Less than two percent of the rams tested are classified as "suspect;" these often are ram lambs.**

## ELISA Test Results in South Dakota

Between November 1989 and October 1990, the ADRDL at Brookings tested blood samples from nearly 5,200 rams in South Dakota. More than 95 percent of the rams tested were negative for *B. ovis*, 2.8 percent or 146 rams were positive, and 1.5 percent were called suspects. Even though statewide a low percentage of rams were found positive, one county with 279 rams tested had 26 percent positives.

### Summary

In South Dakota, any ram six months or older which moves into a flock is now required to test negative for *B. ovis*. Many sheep shows also follow these regulations.

Selling rams that test negative for *B. ovis* is good for the breeder's reputation and helps control the spread of this disease between flocks. However, even if you don't sell breeding rams, it may be to your advantage to have your ram battery tested. This is especially true if the performance of your flock fits the classic symptoms of poor fertility.

### Additional Information

For more information about *B. ovis*, contact your local veterinarian, the state veterinarian's office, or the Animal Disease Research and Diagnostic Laboratory, Veterinary Science Department, SDSU, Brookings, 57007, (605) 688-5171.

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150 copies printed by CES at a cost of 5.5 cents each. December 1992.